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Merchant & Gould P.C.
P.O. Box 2903
Minneapolis, MN 55402-0903

EXAMINER

PATEL, ASHOKKUMAR B

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 03/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/930,659

Applicant(s)

FLANAGIN ET AL.

Examiner

Ashok B. Patel

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Application Number 09/930, 659 was filed on 08/14/2001. Claims 1-37 are subject to examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 7, 8 and 22 recite the limitation "the other data structure". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-13 and 15-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Hertzog et al. (hereinafter Hertzog)(US 2003/0069874 A1).

Referring to claim 1,

The reference teaches a computer-readable medium having a data structure stored thereon (Fig.1, element 26) for use in synchronizing an object (Fig. 2, element 26) between a server (Fig. 1, element 16) and a client (Fig. 1, element 12), the data structure comprising:

(a) a version portion that indicates which version of the data structure (Fig. 7) is being used to synchronize the object (page 3, para.[0048],” The application server 40 is furthermore responsible for sending personal information updates to the client services module 26 so as to synchronize the local database 30 with a specific subset of information maintained within the server database 34.”, Fig. 6, Fig. 7, page 9, para.[0105]);page 5, para.[0068]), “It should be noted that a sequence identifier communicated from the client application 18 is for a sequence of operations with respect to the client application 18, whereas the sequence identifier communicated from the application server 40 to the client application 18 is with respect to a sequence of operations performed by the application server 40.”);Fig. 6, Fig. 7, page 9, para.[0105]);

(b) a command portion that indicates a synchronization action to take to synchronize the object between the server and the client (page 3, para.[0046],” Components of the client services module 26 (including a synchronization engine 28) are responsible for synchronizing information maintained in the local database 30 with information maintained on a remote database accessible via the network 14”); and

(c) if an error occurs while the synchronization action is performed, a response portion that indicates that the synchronization action was not successful (page 4, para.[0053]).

Referring to claim 2,

The reference teaches wherein the command portion includes a fetch portion (page 3, para.[0046],” Components of the client services module 26 (including a synchronization engine 28) are responsible for synchronizing information maintained in the local

Art Unit: 2154

database 30 with information maintained on a remote database accessible via the network 14"), having an object ID indicating that the server should send an object associated with the object ID to the client. (page 3, para.[0048]," The application server 40 is furthermore responsible for sending personal information updates to the client services module 26 so as to synchronize the local database 30 with a specific subset of information maintained within the server database 34.", Fig. 6, Fig. 7, page 9, para.[0105])

Referring to claim 3,

The reference teaches the computer-readable medium of claim 2, wherein the fetch portion indicates that only the object should be sent (page 3, para.[0046]," Components of the client services module 26 (including a synchronization engine 28) are responsible for synchronizing information maintained in the local database 30 with information maintained on a remote database accessible via the network 14", and page 3, para.[0048]," The application server 40 is furthermore responsible for sending personal information updates to the client services module 26 so as to synchronize the local database 30 with a specific subset of information maintained within the server database 34.", Fig. 6, Fig. 7, page 9, para.[0105], page 5, para.[0065])

Referring to claim 4,

The reference teaches the computer-readable medium of claim 1, wherein the command portion includes a window size portion that indicates a maximum number of objects for the server to send. (page 6, para.[0070])

Referring to claim 5,

Art Unit: 2154

The reference teaches the computer-readable medium of claim 1, wherein the command portion includes a more available portion that indicates that the server has more objects available to send to the client. (page 4, para.[0053], [0054]).

Referring to claims 6, 7 and 8,

The reference teaches the computer-readable medium of claim 1, further comprising an options portion that includes another data structure, and the computer-readable medium of claim 6, wherein the other data structure is used to send additional commands between the client and the server, and the computer-readable medium of claim 6, wherein the other data structure is used to send data between the client and the server. (page 4, para.[0054], "As illustrated in FIG. 2, the client services module 26 includes the synchronization engine 28, a synchronization trader (application server) 52, an eXtensible Markup Language (XML) stack 53, and a collection of other synchronization traders 54 and 56. The trader 52 is an object that resides in the synchronization engine's primary thread and manages all communication and interaction between the client application 18 and the application server 40. Specifically, the synchronization engine 28 polls the application server 40 for new messages (e.g., notifications of other user's subscriptions or updates) and will furthermore inform the application server 40 of new recruitment requests. The synchronization engine 28 manages all timed events for the client application 18, including calls to initiate synchronization with the application server 40 and database 34, as well as synchronization operations with external entities such as the PIM 22 or the PDA 32. The synchronization engine 28 furthermore includes an interface for communicating

Art Unit: 2154

with the GUI 24, so as to facilitate the display of messages received from the application server 40, and the display of information concerning a synchronization operation.”)

Referring to claim 9,

The reference teaches the computer-readable medium of claim 1, further comprising if the client requests updates from the server, a get changes portion that indicates that the server should send updates to the client (page 3, para.[0046],” Components of the client services module 26 (including a synchronization engine 28) are responsible for synchronizing information maintained in the local database 30 with information maintained on a remote database accessible via the network 14”, and page 3, para.[0048],” The application server 40 is furthermore responsible for sending personal information updates to the client services module 26 so as to synchronize the local database 30 with a specific subset of information maintained within the server database 34.”, Fig. 6, Fig. 7, page 9, para.[0105], page 5, para.[0065]).

Referring to claims 10 and 11,

The reference teaches the computer-readable medium of claim 1, further comprising if the client sends an object to be added to the server, a response portion that indicates which ID the server associated with the object, and the computer-readable medium of claim 10, wherein the response portion further indicates an ID the client sent with the object. (page 5, para.[0068]), “It should be noted that a sequence identifier communicated from the client application 18 is for a sequence of operations with respect to the client application 18, whereas the sequence identifier communicated from

Art Unit: 2154

the application server 40 to the client application 18 is with respect to a sequence of operations performed by the application server 40.”)

Referring to claim 12,

The reference teaches the computer-readable medium of claim 1, wherein the object is associated with a plurality of other objects to be synchronized. (Figs. 6 and 7)

Referring to claim 13,

The reference teaches the computer-readable medium of claim 1, wherein the data structure is embedded within other data. (page 3, para.[0046],” Components of the client services module 26 (including a synchronization engine 28) are responsible for synchronizing information maintained in the local database 30 with information maintained on a remote database accessible via the network 14”, and page 3, para.[0048],” The application server 40 is furthermore responsible for sending personal information updates to the client services module 26 so as to synchronize the local database 30 with a specific subset of information maintained within the server database 34.”, Fig. 6, Fig. 7, page 9, para.[0105], page 5, para.[0065]).

Referring to claim 15,

The reference teaches the computer-readable medium of claim 1, wherein the data structure is transmitted using a hypertext transport protocol. (page 4, para.[0056])

Referring to claim 16,

The reference teaches the computer-readable medium of claim 1, wherein the command portion includes a data portion that contains data associated with the object (page 5; para. [0061] ,”The client application 18 encodes information to be sent to the

Art Unit: 2154

application server 40 in eXtensible Markup Language (XML), and propagates an XML stream over HTTP to the application server 40. As described above, the HTTP communications may further be encapsulated utilizing SSL to provide a higher degree of security. The client application 18 then waits for the application server's HTTP response, which is also an XML stream. The XML stream received by the client application 18 delivers C++ objects.")

Referring to claim 17,

The reference teaches the computer-readable medium of claim 1, further comprising a status portion that indicates a status of performing the synchronization action. (page 4, para.[0053])

Referring to claim 18,

The reference teaches the computer-readable medium of claim 1, wherein the data structure further comprises: (d) another command portion that indicates another synchronization action to take to synchronize another object between the server and the client (page 4, para.[0054], "As illustrated in FIG. 2, the client services module 26 includes the synchronization engine 28, a synchronization trader (application server) 52, an eXtensible Markup Language (XML) stack 53, and a collection of other synchronization traders 54 and 56. The trader 52 is an object that resides in the synchronization engine's primary thread and manages all communication and interaction between the client application 18 and the application server 40. Specifically, the synchronization engine 28 polls the application server 40 for new messages (e.g., notifications of other user's subscriptions or updates) and will furthermore inform the

Art Unit: 2154

application server 40 of new recruitment requests. The synchronization engine 28 manages all timed events for the client application 18, including calls to initiate synchronization with the application server 40 and database 34, as well as synchronization operations with external entities such as the PIM 22 or the PDA 32. The synchronization engine 28 furthermore includes an interface for communicating with the GUI 24, so as to facilitate the display of messages received from the application server 40, and the display of information concerning a synchronization operation.”); and (e) if an error occurs while the other synchronization action is performed, another response portion that indicates that the other synchronization action was not successful. (page 4, para.[0053]).

Referring to claims 19 and 20,

The reference teaches the computer-readable medium of claim 18, wherein the data structure further comprises: (f) if the client requests information, an information response portion that contains the requested information, and the computer-readable medium of claim 1, wherein the data structure further comprises: (d) if the client requests information, an information response portion that contains the requested information. (page 3, para.[0048],” The application server 40 is furthermore responsible for sending personal information updates to the client services module 26 so as to synchronize the local database 30 with a specific subset of information maintained within the server database 34.”, Fig. 6, Fig. 7, page 9, para.[0105], page 5, para.[0065]).

Referring to claim 21,

The reference teaches a system for synchronizing an object (Fig. 1), comprising:

(a) a server (Fig. 1, element 16) configured to receive a data structure, the data structure having:

(i) a version portion indicating which version of the data structure is being used to synchronize the object (page 3, para.[0048], "The application server 40 is furthermore responsible for sending personal information updates to the client services module 26 so as to synchronize the local database 30 with a specific subset of information maintained within the server database 34.", Fig. 6, Fig. 7, page 9, para.[0105]); and

(ii) a command portion that indicates a synchronization action to take to synchronize the object (page 3, para.[0046], "Components of the client services module 26 (including a synchronization engine 28) are responsible for synchronizing information maintained in the local database 30 with information maintained on a remote database accessible via the network 14");

(b) a mobile device coupled to the server, wherein the mobile device is configured to send the data structure to the server to synchronize the object (Fig.1, element 12, page 3, para.[0042]).

Referring to claim 22,

The reference teaches the system of claim 21, wherein the server is further configured to send another data structure having:

(i) a second version portion indicating which version of the other data structure is being used to synchronize the object (page 5, para.[0068]), "It should be noted that a sequence identifier communicated from the client application 18 is for a sequence of operations with respect to the client application 18, whereas the sequence identifier

Art Unit: 2154

communicated from the application server 40 to the client application 18 is with respect to a sequence of operations performed by the application server 40.”);

(ii) if an error associated with the synchronization action occurred while processing the data structure, a response portion that indicates the error (page 4, para.[0053]).

Referring to claim 23,

The reference teaches the system of claim 22, wherein if an error does not occur, the data structure omits the response portion. (page 4, para.[0053]).

Referring to claim 24,

The reference teaches the system of claim 22, wherein the other data structure further comprises: (iii) if the mobile device requests information, an information response portion that contains the requested information (page 3, para.[0048],” The application server 40 is furthermore responsible for sending personal information updates to the client services module 26 so as to synchronize the local database 30 with a specific subset of information maintained within the server database 34.”, Fig. 6, Fig. 7, page 9, para.[0105], page 5, para.[0065]).

Referring to claim 25,

The reference teaches the system of claim 23, wherein the other data structure further comprises a command portion that indicates another synchronization action to take to synchronize another object between the server and the mobile device. (page 4, para. [0054],[0056])

Referring to claim 26,

Art Unit: 2154

The reference teaches the system of claim 24, wherein the server is further configured to update data on another server using the data structure. (Fig. 1, element 16 and elements 40, 42).

Referring to claim 27,

The reference teaches the system of claim 26, wherein the server comprises a proxy server. (Fig. 1, element 16).

Referring to claim 28,

The reference teaches the system of claim 27, wherein the proxy server associates an object on the mobile device with an object on the other server (Fig. 1, element 16 and elements 40, 42).

Referring to claim 29,

The reference teaches a mobile device having a data store and computer-executable instructions (Fig. 1, element 12, page 3, para.[0042]), the computer-executable instructions, comprising:

formatting a synchronization message having portions including:

a version ID portion (page 5, para.[0068]), "It should be noted that a sequence identifier communicated from the client application 18 is for a sequence of operations with respect to the client application 18, whereas the sequence identifier communicated from the application server 40 to the client application 18 is with respect to a sequence of operations performed by the application server 40.", and page 3, para.[0048]," The application server 40 is furthermore responsible for sending personal information updates to the client services module 26 so as to synchronize the local database 30

with a specific subset of information maintained within the server database 34.", Fig. 6, Fig. 7, page 9, para.[0105]); and

a commands portion, the commands portion including information that defines changes to be made to a server to cause data on the server system to be synchronized with data on the data store; and transmitting the formatted message to the server (Fig. 7, "To this end, FIG. 7 illustrates an exemplary local database structure 120 comprising a number of information entities that may either constitute tables or, where the database constitutes an object database, information objects. Viewing the information entities as objects, the local database structure 120 includes a users object 122 that may store a sub-set of information stored in the users table 92 of the database structure 90. Specifically, the sub-set of stored information may comprise records for only those users that have elected to publish information to the receiving user that owns the local database 30 within which the structure 120 is implemented.")

Referring to claim 30,

The reference teaches the device of claim 29, wherein the synchronization message further includes: if an error occurred while the mobile device was updating the data store, a response portion that indicates that the update was not successful. (page 4, para.[0053]).

Referring to claim 31,

The reference teaches the device of claim 30, wherein the synchronization message further includes: if the mobile device requests information, an information response portion that contains the requested information. (page 3, para.[0048]," The application

Art Unit: 2154

server 40 is furthermore responsible for sending personal information updates to the client services module 26 so as to synchronize the local database 30 with a specific subset of information maintained within the server database 34.", Fig. 6, Fig. 7, page 9, para.[0105], page 5, para.[0065]).

Referring to claim 32,

The reference teaches a device of claim 30, wherein the commands portion includes a fetch portion (page 3, para.[0046]," Components of the client services module 26 (including a synchronization engine 28) are responsible for synchronizing information maintained in the local database 30 with information maintained on a remote database accessible via the network 14"), having an object ID indicating that the server should send an object associated with the object ID to the mobile device. (page 3, para.[0048]," The application server 40 is furthermore responsible for sending personal information updates to the client services module 26 so as to synchronize the local database 30 with a specific subset of information maintained within the server database 34.", Fig. 6, Fig. 7, page 9, para.[0105]).

Referring to claim 33,

The reference teaches the device of claim 30, wherein the commands portion includes a window size that indicates a maximum number of objects for the server to send. (page 6, para.[0070]).

Referring to claim 34,

The reference teaches a server having a data store and computer-executable instructions, the computer-executable instructions, comprising:

receiving an update synchronization message having portions including: another version ID portion; and another commands portion, including information that defines changes to be made on the server to cause the data store to be synchronized with data on a mobile device; and (Fig. 7, page 9, para.[0105], "To this end, FIG. 7 illustrates an exemplary local database structure 120 comprising a number of information entities that may either constitute tables or, where the database constitutes an object database, information objects. Viewing the information entities as objects, the local database structure 120 includes a users object 122 that may store a sub-set of information stored in the users table 92 of the database structure 90. Specifically, the sub-set of stored information may comprise records for only those users that have elected to publish information to the receiving user that owns the local database 30 within which the structure 120 is implemented.", page 5, para.[0068]), "It should be noted that a sequence identifier communicated from the client application 18 is for a sequence of operations with respect to the client application 18, whereas the sequence identifier communicated from the application server 40 to the client application 18 is with respect to a sequence of operations performed by the application server 40.");

sending a response synchronization message having portions including: a version ID portion; and a commands portion, including information that defines changes to be made on the mobile device to cause the data store to be synchronized with data on the mobile device (page 3, para.[0048], "The application server 40 is furthermore responsible for sending personal information updates to the client services module 26 so as to synchronize the local database 30 with a specific subset of information

Art Unit: 2154

maintained within the server database 34.", Fig. 6, Fig. 7, page 9, para.[0105]);page 5, para.[0068]), "It should be noted that a sequence identifier communicated from the client application 18 is for a sequence of operations with respect to the client application 18, whereas the sequence identifier communicated from the application server 40 to the client application 18 is with respect to a sequence of operations performed by the application server 40.", page 3, para.[0046]," Components of the client services module 26 (including a synchronization engine 28) are responsible for synchronizing information maintained in the local database 30 with information maintained on a remote database accessible via the network 14");); and

if an error occurred while processing the update synchronization message, a response portion that indicates that synchronization was not successful. (page 4, para.[0053])

Referring to claim 35,

The reference teaches a server of claim 34, further comprising a parser for parsing the update synchronization message; and a generator for generating the response synchronization message. device (page 3, para.[0048]," The application server 40 is furthermore responsible for sending personal information updates to the client services module 26 so as to synchronize the local database 30 with a specific subset of information maintained within the server database 34.", Fig. 6, Fig. 7, page 9, para.[0105])

Referring to claims 36 and 37,

Art Unit: 2154

The reference teaches server of claim 35, wherein the update synchronization message and the response synchronization message each are encoded using a markup language, and the server of claim 36, wherein the markup language is an extensible markup language. (page 5, para.[0061], "The client application 18 encodes information to be sent to the application server 40 in eXtensible Markup Language (XML), and propagates an XML stream over HTTP to the application server 40. As described above, the HTTP communications may further be encapsulated utilizing SSL to provide a higher degree of security. The client application 18 then waits for the application server's HTTP response, which is also an XML stream. The XML stream received by the client application 18 delivers C++ objects.")

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hertzog et al. (hereinafter Hertzog)(US 2003/0069874 A1). in view of JP2000020370A

Referring to claim 14,

Keeping in mind the teachings of the reference Hertzog as stated above, the reference explicitly fails to teach the computer-readable medium of claim 1, wherein the data structure is embedded in an email. The reference JP2000020370A teaches

Art Unit: 2154

"NOVELTY - Synchronization process units (12,21) synchronize database stored in remote terminal (20), with database stored in main terminal or network (10), via Internet (40) and public circuit (50). Data synchronization information required for data synchronization is suitably communicated between the main and remote terminals using E-mail." Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to add the teachings of the reference JP2000020370A to Hertzog such that the data synchronization information required for data synchronization is suitably communicated between the main and remote terminals using E-mail. This would have been obvious because it enables simple and inexpensive process of exchange of information between main and remote terminals by utilizing Internet and its E-mail function, avoids need for installation of remote access network, by utilizing existing popular Internet and offers better security to information by utilizing security features of E-mail server as taught by JP2000020370A

Conclusion

Examiner's note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.


Art Unit: 2154

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok B. Patel whose telephone number is (571) 272-3972. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abp


JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100